

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

5 1-10 (cancelled).

11 (currently amended): An optical disk system control chip, used in an optical disk system to update firmware information, the control chip comprising:

10 a microprocessor, coupled to a data bus, wherein the microprocessor is also coupled to a firmware memory through the data bus, in which the firmware memory is used to store the firmware information;

a decoder, coupled to the microprocessor through the data bus, wherein the decoder is also coupled to a first buffer memory, and the decoder receives updated firmware information from an update source;

15 a controller, coupled to the decoder, and coupled to the microprocessor through the data bus, wherein the controller is used to receive a control signal and general data;

a control circuit used for generating a reset signal, the control circuit being external and separate from the microprocessor; and

20 a second buffer memory, coupled to the microprocessor through the data bus, wherein when the optical disk system is operated in an update mode, the microprocessor accesses the firmware memory as a data access memory and accesses the second buffer memory as an execution program memory, and after the firmware is completely updated, the second buffer memory is  
25 accessed as data access memory and the firmware memory is accessed as execution program memory.

wherein the control circuit issues the reset signal to the microprocessor for resetting the program counter of the microprocessor to a predetermined value,  
and a value of a program counter of the microprocessor is changed and the  
30 microprocessor executes program code stored in the firmware memory at a predetermined location of the program code corresponding to the

predetermined value of the program counter instead of executing a next instruction in the program code located after the current position of the program counter.

5 12-13 (cancelled).

14 (original): The control chip of claim 11 wherein the update source, which the updated firmware information is fetched from, is an optical disk read by the optical disk system.

10

15 (original): The control chip of claim 14 wherein the optical disk is a compact disk, and the optical disk system is a compact disk drive.

16 (original): The control chip of claim 11 wherein the update source, which the updated firmware information is fetched from, is a peripheral device connected to the optical disk system through an interface connection.

15

17 (original): The control chip of claim 16 wherein the peripheral device is a computer, onto which the program code and the update program routine have been downloaded from a software source.

20

18 (original): The control chip of claim 16 wherein the interface connection is an IDE interface, an EIDE interface, a SCSI interface, an RS232 interface, a USB interface, or an IEEE 1394 interface.

25

19 (original): The control chip of claim 11, wherein the firmware memory is a flash memory.

20 (original): The control chip of claim 11, wherein the firmware memory is an electrically erasable programmable read only memory (EEPROM).

30